

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1343430

Luminaire Tested: P3A13R159030DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343430
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159030DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 90CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

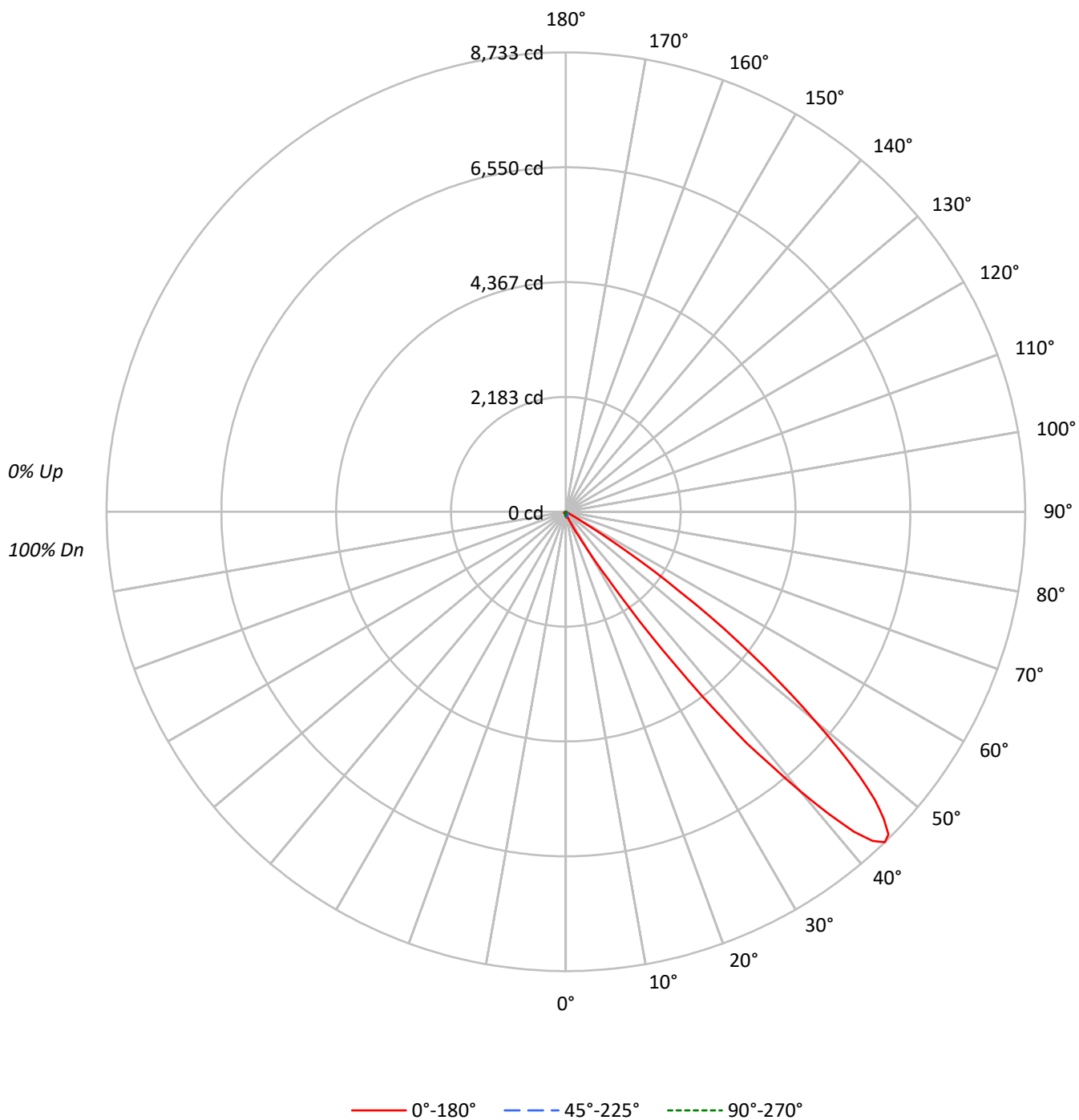
Lumens per Lamp: N/A
Luminaire Lumens: 975.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92	90	89	87
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	61
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62	57	53	50
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55	49	44	42
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48	42	37	35
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42	36	31	29
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37	31	26	24
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33	27	22	20
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	18968	18968	18968	18968	18968
5°	23531	20977	17125	14990	14770
10°	23157	17969	13204	11690	11912
15°	19206	12804	9489	9716	10375
20°	33346	10198	7257	8401	9521
25°	74327	12243	5879	7767	8928
30°	222287	15015	5165	7621	9343
35°	855678	16918	4685	7817	9878
40°	1986121	14742	4466	8072	10563
45°	2690078	11164	3907	8745	11443
50°	2109270	6618	3991	9279	12588
55°	1012418	2982	3708	10016	13763
60°	92536	439	3421	10657	15350
65°	10066	0	3009	11104	16655
70°	2500	0	3719	11861	18080
75°	2457	847	4914	13217	20588
80°	2399	2399	6188	13512	22099
85°	2516	2516	9812	12328	24405

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2690078 cd/sqm

TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.4	0.8
10°-20°	15.4	1.6
20°-30°	36.8	3.8
30°-40°	201.7	20.7
40°-50°	488.4	50.1
50°-60°	194.8	20.0
60°-70°	16.8	1.7
70°-80°	9.5	1.0
80°-90°	4.2	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	59.6	6.1
0°-40°	261.3	26.8
0°-60°	944.5	96.9
0°-90°	975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	975.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	86	86	86	86	86	
5°	107	95	78	68	67	10
15°	85	56	42	43	46	29
25°	307	51	24	32	37	185
35°	3196	63	18	29	37	2259
45°	8675	36	13	28	37	6119
55°	2648	8	10	26	36	2467
65°	19	0	6	21	32	50
75°	3	1	6	16	24	3
85°	1	1	4	5	10	1
90°	0	0	0	0	0	

TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
2.5°	97.2	97.2	98.2	97.2	97.2	97.2	97.2	96.2	96.2	96.2	93.3
5°	106.9	106.9	106.9	106.9	106.0	106.0	106.0	105.0	105.0	104.0	95.3
7.5°	110.8	110.8	109.9	109.9	108.9	108.9	107.9	106.9	106.0	105.0	91.4
10°	104.0	104.0	104.0	103.0	103.0	102.1	101.1	100.1	99.2	97.2	80.7
12.5°	92.4	92.4	93.3	92.4	91.4	90.4	88.5	87.5	86.5	84.6	67.1
15°	84.6	84.6	84.6	83.6	82.6	80.7	79.7	77.8	76.8	73.9	56.4
17.5°	107.9	107.9	106.9	105.0	101.1	98.2	93.3	89.4	84.6	78.7	48.6
20°	142.9	142.9	141.0	139.0	134.2	129.3	121.5	114.7	106.9	100.1	43.7
22.5°	207.1	210.0	204.2	197.3	190.5	178.9	168.2	157.5	143.9	132.2	44.7
25°	307.2	310.1	307.2	291.7	279.0	263.5	243.0	221.7	198.3	176.9	50.6
27.5°	497.7	499.7	494.8	456.9	436.5	395.7	359.7	324.7	285.8	246.9	55.4
30°	877.9	878.8	847.7	771.9	704.8	615.4	539.6	466.6	405.4	343.2	59.3
31°	1155.9	1128.7	1062.6	971.2	864.3	743.7	639.7	545.4	454.0	386.9	60.3
32°	1468.0	1464.1	1354.2	1195.8	1052.9	902.2	745.7	625.1	520.1	428.7	61.2
33°	1881.1	1883.1	1710.0	1523.4	1289.1	1086.9	881.8	716.5	590.1	478.3	63.2
34°	2526.7	2375.0	2171.8	1919.1	1600.2	1295.9	1029.5	822.5	653.3	525.9	63.2
35°	3196.5	3043.9	2820.3	2437.2	1999.7	1573.9	1205.5	936.2	729.1	577.5	63.2
36°	3947.0	3817.7	3479.4	2990.4	2432.4	1836.4	1392.1	1067.4	804.0	624.1	62.2
37°	4757.8	4568.2	4193.0	3659.2	2912.6	2205.8	1619.6	1197.7	878.8	674.7	60.3
38°	5581.2	5410.1	4936.7	4290.2	3486.2	2595.7	1847.1	1323.1	947.9	712.6	57.4
39°	6205.3	6112.0	5642.5	4920.1	3944.1	2965.1	2081.4	1457.3	1020.8	750.5	54.4
40°	6938.4	6787.7	6342.4	5449.0	4485.6	3341.3	2310.8	1575.9	1081.0	780.6	51.5
41°	7607.2	7416.7	6854.7	5991.5	4919.2	3679.7	2528.6	1698.4	1129.7	798.1	49.6
42°	8180.8	7959.1	7371.9	6456.2	5281.8	3949.9	2702.6	1785.9	1175.3	812.7	46.7
43°	8552.2	8360.6	7783.2	6805.2	5591.9	4197.8	2865.0	1877.3	1203.5	822.5	42.8
44°	8733.0	8539.5	7980.5	7023.9	5782.4	4346.6	2970.0	1940.4	1234.7	835.1	39.9
45°	8674.6	8478.3	7937.7	7027.8	5841.7	4400.0	3014.7	1968.6	1251.2	846.8	36.0
46°	8407.3	8269.3	7724.8	6845.0	5729.0	4342.7	2989.4	1947.2	1245.3	846.8	32.1
47°	8032.0	7874.6	7356.4	6531.0	5455.8	4194.9	2887.3	1882.1	1209.4	827.3	28.2
48°	7520.7	7386.5	6842.1	6032.3	5036.8	3873.1	2656.9	1776.1	1153.0	789.4	24.3
49°	6879.1	6692.4	6185.9	5394.6	4490.4	3416.2	2354.6	1597.3	1062.6	735.9	21.4
50°	6183.0	5952.6	5561.8	4755.8	3925.6	2929.1	1957.0	1350.3	935.2	665.9	19.4
51°	5501.5	5267.2	4894.9	4209.5	3322.9	2430.4	1578.8	1078.1	770.0	569.7	16.5
52°	4794.7	4598.3	4181.3	3642.7	2844.6	1969.6	1315.3	911.9	639.7	478.3	13.6
53°	4090.9	3956.7	3560.1	3014.7	2285.6	1608.9	1074.2	780.6	558.0	409.3	10.7
54°	3386.1	3239.3	2937.9	2451.8	1842.3	1269.6	910.9	653.3	484.1	356.8	9.7
55°	2648.2	2572.4	2294.3	1869.5	1396.0	1013.0	738.8	561.9	405.4	298.5	7.8
56°	2039.6	1954.1	1700.3	1356.2	1037.3	793.3	597.9	458.9	343.2	249.8	5.8
57°	1335.8	1248.3	1080.1	946.9	755.4	578.4	456.9	361.6	279.0	207.1	4.9
58°	789.4	709.7	683.4	583.3	503.6	392.8	337.3	269.3	206.1	163.3	2.9
59°	362.6	368.5	327.6	307.2	279.0	249.8	205.1	179.9	141.0	117.6	1.9
60°	211.0	199.3	194.4	174.0	154.6	137.1	123.5	108.9	88.5	75.8	1.0
62.5°	71.9	69.0	71.0	64.2	60.3	58.3	53.5	45.7	37.9	31.1	0.0
65°	19.4	19.4	18.5	17.5	16.5	15.6	14.6	12.6	11.7	9.7	0.0



TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	6.8	6.8	5.8	5.8	4.9	4.9	3.9	3.9	2.9	2.9	0.0
70°	3.9	3.9	3.9	2.9	2.9	2.9	1.9	1.9	1.9	1.0	0.0
72.5°	2.9	2.9	2.9	2.9	2.9	2.9	1.9	1.9	1.9	1.0	1.0
75°	2.9	2.9	2.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.0
77.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
80°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.0	1.9
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.9
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	86.5	86.5	86.5	86.5	86.5	86.5
2.5°	89.4	85.6	80.7	77.8	76.8	75.8
5°	85.6	77.8	71.9	68.1	67.1	67.1
7.5°	76.8	68.1	62.2	60.3	59.3	59.3
10°	67.1	59.3	54.4	52.5	53.5	53.5
12.5°	56.4	49.6	47.6	47.6	48.6	49.6
15°	45.7	41.8	41.8	42.8	44.7	45.7
17.5°	37.9	36.0	36.9	38.9	40.8	42.8
20°	31.1	31.1	33.1	36.0	38.9	40.8
22.5°	26.2	27.2	30.1	33.1	36.9	38.9
25°	22.4	24.3	27.2	32.1	36.0	36.9
27.5°	19.4	22.4	26.2	31.1	35.0	36.9
30°	16.5	20.4	25.3	30.1	35.0	36.9
31°	15.6	19.4	24.3	30.1	35.0	36.9
32°	14.6	19.4	24.3	30.1	35.0	36.9
33°	13.6	18.5	24.3	29.2	35.0	36.9
34°	12.6	18.5	24.3	30.1	35.0	36.9
35°	11.7	17.5	23.3	29.2	34.0	36.9
36°	10.7	17.5	23.3	29.2	35.0	36.9
37°	9.7	17.5	23.3	29.2	34.0	36.9
38°	9.7	16.5	22.4	29.2	34.0	36.9
39°	8.7	15.6	22.4	29.2	34.0	36.9
40°	7.8	15.6	21.4	28.2	34.0	36.9
41°	6.8	14.6	21.4	28.2	34.0	36.9
42°	5.8	14.6	21.4	28.2	34.0	36.9
43°	4.9	13.6	20.4	28.2	34.0	36.9
44°	4.9	13.6	20.4	28.2	34.0	36.9
45°	3.9	12.6	19.4	28.2	34.0	36.9
46°	3.9	12.6	19.4	27.2	34.0	36.9
47°	2.9	12.6	19.4	27.2	34.0	36.9
48°	2.9	11.7	19.4	27.2	34.0	36.9
49°	1.9	11.7	19.4	27.2	34.0	36.9
50°	1.9	11.7	18.5	27.2	34.0	36.9
51°	1.9	11.7	18.5	27.2	34.0	36.9
52°	1.9	10.7	18.5	27.2	34.0	36.9
53°	1.9	10.7	18.5	27.2	34.0	36.9
54°	1.9	10.7	17.5	27.2	34.0	36.9
55°	1.9	9.7	17.5	26.2	34.0	36.0
56°	1.9	9.7	17.5	26.2	34.0	36.0
57°	1.9	9.7	16.5	26.2	34.0	36.0
58°	1.9	8.7	16.5	25.3	33.1	36.0
59°	1.9	8.7	15.6	25.3	33.1	35.0
60°	1.9	7.8	15.6	24.3	32.1	35.0
62.5°	1.9	6.8	13.6	23.3	31.1	33.1
65°	1.9	5.8	12.6	21.4	30.1	32.1



TEST NUMBER: P1343430

CATALOG NUMBER: P3A13R159030DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.9	5.8	11.7	20.4	28.2	31.1
70°	1.9	5.8	10.7	18.5	27.2	28.2
72.5°	2.9	5.8	9.7	17.5	25.3	26.2
75°	3.9	5.8	8.7	15.6	23.3	24.3
77.5°	3.9	5.8	7.8	13.6	20.4	21.4
80°	3.9	4.9	6.8	10.7	16.5	17.5
82.5°	3.9	4.9	4.9	8.7	12.6	13.6
85°	2.9	3.9	3.9	4.9	8.7	9.7
87.5°	2.9	3.9	1.9	2.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)